REMARKS

I.   The Amendment of Independent Claims 10 and 12

In the earlier Office Action, claims 2 and 10-12 were indicated to be allowable if rewritten in independent form. That step was taken in the response filed March 11, 2005. The allowability of those claims has now been withdrawn "in consideration of Cuccia in view of Eyer".

Upon reviewing the language of rewritten independent claims 10 and 12, it was determined there was a lack of certain antecedents, which lack has been addressed by the current amendment of those claims. In view of those amendments and the Remarks below, reconsideration and allowance of claims 10 and 12 are requested.

2.   The Rejections

Claims 1, 3 and 10-12 have been rejected under 35 U.S.C.§103 (a) as unpatentable over Cuccia (US 6,157,673) in view of Eyer et al. (US 5,982,411).

Claims 4 – 9 have been rejected under 35 U.S.C.§103 (a) as unpatentable (obvious) over Cuccia (US 6,157,673) in view of Eyer et al. (US 5,982,411) as applied to claim 3, and further in view of Yu (US 5,410,709).

3.   The Cited References

In the latest Rejection, the Examiner relies on a newly cited reference (Cuccia) to support new grounds of rejection (35 U.S.C.§ 103(a) – obviousness based on Cuccia plus Eyer et al. for independent claims 1 and 10-12 and dependent clam 3 and Cuccia plus Eyer plus Yu for dependent claims 4-9).

A. Cuccia

Cuccia describes a system for extracting program specific information (PSI) on a continuous basis from each of a plurality of transport streams, such as MPEG-2 encoded data streams, by means of a "pre-decoder" 203 (see Cuccia, Fig. 3). Cuccia is interested in determining program specific

information (particularly as it relates to channel or station identification) for all available channels in advance of changing channels so that "the PSI is made immediately available to the transport decoder eliminating the delay of waiting for applicable packets in the transport stream to extract the PSI prior to decoding and presenting a program to a user".

The program specific information (PSI) referred to by Cuccia is not "a first transport protocol" or "a second transport protocol" as required by all of the rejected claims.

B. Eyer et al.

Eyer describes apparatus for allowing a viewer to access programs that are grouped according to a common service provider (e.g. ABC, HBO, etc.) simply by depressing a channel up or channel down button on a hand held remote control. The system groups together program services provided via one or more transmission paths (cable broadcast, terrestrial broadcast, satellite broadcast), allowing a viewer to successively select channels in the group regardless of the type of broadcast signal, transmission path, frequency, transport stream and/or PID in which the channel is carried. Each of the received broadcast signals is provided to a signal decoding system which has a cable tuner/demodulator, a terrestrial tuner/demodulator and a satellite tuner/demodulator coupled to analog and digital signal processing circuits capable of processing signals from any of the sources.

C. Yu et al.

Yu describes an interrupt dispatcher mechanism for use in a data processing system having a central processing unit (CPU) operating under the control of a first operating system, a main memory and a number of controllers having a number of lines connected to a number of terminals. A common hardware interrupt register is connected to the controllers for receiving interrupt requests (see claim 1 of Yu). This very complex data processing system has nothing to do with transport decoders, packetized datastreams or protocol decoders.

4. Requirements for a Rejection Under 35 U.S.C.§103 (a)

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the teachings of a plurality of references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's own disclosure. In re Vaeck, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The examiner bears the burden of establishing a prima facie case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). To support a conclusion that a claimed combination is obvious, either: (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. Ex parte Clapp, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). Where the teachings of various references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. In re Young, 18 U.S.P.Q.2d 1089 (Fed. Cir. 1991).

5. No Prima Facie Case of Obviousness Has Been Made Out

In the first instance, the question should be asked, "Why would a person of ordinary skill in this art even consider Cuccia and/or Eyer et al. (and/or Yu) for solving a problem involving processing a plurality of data packet streams,

each having a different transport protocol ?".

NONE of these references even mention transport protocols. NONE of these references mention that two or more of their packet datastreams have different transport protocols (as is required by all of the rejected claims).

The Examiner acknowledges these deficiencies with respect to Cuccia (see Office Action, paragraph 2 – "However, Cuccia does not disclose that the packets have a first and second transport protocol.").

The Examiner attempts to find in Eyer the claimed (e.g. claim 1):

"first stream of packets -----having a first transport protocol" and

"a second stream of packets ------having a second transport protocol".

However, like Cuccia, in the case of Eyer et al., there is NO mention of "transport protocol". The Examiner cites col. 7, line 61 through col. 8, line 6 of Eyer for a disclosure of "a first stream of packets having a first transport protocol" but what Eyer states is:

"Typically, data packets from up to ten or more digital programming services are packetized and multiplexed for delivery in a digital transport stream which is provided in an allocated frequency spectrum."

Thus, Eyer does not mention and is not at all concerned with a first and second transport protocol or with any transport protocol and does not, therefore, serve as a proper basis for rejecting the present claims, either alone or in combination with Cuccia.

The Examiner also relies on col. 10, lines 59 – 63 where Eyer describes "A syntax for a virtual channel record" (line 57) as follows:

"The syntax is compatible with the standards of the Advanced Television Systems Committee (ATSC) described in "System Information for Digital Television – ATSC Standard", Document A/56, Jan. 3, 1996, Advanced Television Systems Committee".

Again, Eyer is not at all concerned with a first and second transport protocol or any protocol. This second quoted passage adds nothing to the first.

The Examiner also cites col. 8, lines 8 - 17 of Eyer for a disclosure of "a second stream of packets having a second transport protocol" but what Eyer states at that point is:

> " A terminal 215 receives a digital satellite broadcast signal such as from a DBS system and passes the signal to a satellite tuner/demodulator 250. The tuner/demodulator 250 retrieves the selected programming service according to the broadcast address information from the CPU 275 and provides it to the digital processing function 265. It should be understood that although the digital processing function 265 is shown as processing digital signals from both the terrestrial broadcast and the satellite broadcast, the processing of the digital signals may differ. (emphasis added).

Once again, it is clear that Eyer is not at all concerned, does not discuss and does not seek to solve any problems related with processing first and second transport protocols.

In this context of a complete absence of any mention of transport protocols in either Cuccia or Eyer, the Examiner then attempts to identify, in Eyer, the element "a protocol decoder, etc. " of each of independent claims 1, and 10-12. The Examiner states:

> "A protocol decoder (item 265) is coupled to the first and second packet stream sources".

However, it is clear that "item 265" (consistently referred to by Eyer as "digital processing function 265") is NOT "a protocol decoder". Eyer does identify a "decoder 110", which includes "digital processing function 265". However, decoder 110 is described by Eyer at col. 7, lines 19 – 30 as follows:

> "Each of the received broadcasts are provided to a decoder 110 for processing. The decoder also receives an input from a user interface 185 which is responsive to a user control signal, which may be a channel up or channel down command from, e.g. a remote control as discussed previously. The decoder processes

one or more of the broadcast signals to provide the requested output in the form of a video signal to a television 150, an audio signal to an audio system 160 such as a home theater high-fidelity system, and/or a data signal to a computer 170.".

These signal "decoder" functions are repeated by Eyer at col. 7, lines 61 et seq. (incorrectly characterized by the Examiner as referring to "a protocol decoder") where Eyer states:

"----the signal is provided to the digital processing function 265, where video, audio and/or data processing is processed to recover the corresponding information.".

Thus, contrary to the Examiner's conclusion, it is clear that "digital processing function 265" is NOT "a protocol decoder" but is merely a broadcast signal decoder.

The Examiner completes his reliance on Eyer as a basis for rejecting claims 1, 3 and 10-12 by stating:

"Data from the packet header (fig. 3, item PH) is stored in a register for later use by the decoder (col. 4, line 56 through col. 5, line 2)".

However, "item PH" and "fig. 3" do not appear in Eyer at all and that reference therefore does not provide a basis for the (apparent) rejection of claim 12, which recites "the protocol decoder comprises a register for storing information from a header of a received packet; and the protocol decoder accesses the register to obtain the information".

The rejection of claims 4 – 9 based on the three way combination of Cuccia, Eyer and Yu cannot stand in view of the significant lack of claim elements in Cuccia and Eyer and the further lack of any basis for combining these references, as pointed out above. In addition, the Examiner acknowledges that any combination of Cuccia and Eyer "does not disclose that the first and second control programs comprise a packet handler, several interrupt drivers and an interrupt vector containing a pointer to an interrupt driver, and reallocating a buffer" (Office Action, paragraph 4). Yu has nothing whatsoever to do with processing video/audio/data packet streams having different transport protocols.

The Examiner has not made any showing of a basis for combining this reference with the two cited earlier. No prima facie case of obviousness exists with respect to claims 4 – 9.

CONCLUSION

The action does not make out a prima facie case of obviousness with respect to the pending claims.

The § 103(a) rejection of claims 1, 3, and 10-12 is based on the combination of Cuccia in view of Eyer. There is nothing, however, in Cuccia or Eyer which would lead a person of ordinary skill to combine anything in these references to arrive at the presently claimed combinations of elements.

The 103(a) rejection of dependent claims 4 – 9 is based on the combination of Cuccia in view of Eyer, and further in view of Yu. As noted above, the first combination cannot be made out and therefore, neither can the three way combination stand. It is therefore submitted there is nothing which supports a prima facie case of obviousness of any of the independent claims or any of the dependent claims.

It is respectfully submitted that the suggested combinations can be motivated solely by hindsight reasoning guided by the applicant's own disclosure — reasoning that is expressly forbidden during the examination of a claim under § 103(a). In re Gorman, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991); In re Fritch, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).

None of the references disclose or suggest significant elements of all of the claims such as

"a first stream of packets -----having a first transport protocol" and

"a second stream of packets ------having a second transport protocol".

None of the cited references disclose or suggest

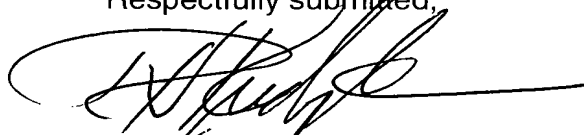"a protocol decoder, coupled to the first and second packet stream sources, etc.".

These elements are required by each of the independent claims 1

and 10-12.

Rejected dependent claims 3 – 9 all are dependent on claim 1, and should be allowable for the same reasons as claim 1.

Reconsideration and allowance of all of the pending claims 1 and 3 – 12 are respectfully requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this Amendment is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Hon. Commissioner for Patents, P.O. Box 1450; Alexandria, VA, 22313-1450 on:

11/3/2005

Date   Linda Tindall